Patent Application
Attorney Docket No.: 57941.000063
Client Reference No.: RA001.2003.2.C.US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Michael FARMWALD et al.

Group Art Unit: Unassigned

Appln. No.: 10/716,596

Examiner: Unassigned

Filed: November 20, 2003

For: INTEGRATED CIRCUIT I/O USING A HIGH PERFORMANCE BUS

INTERFACE

INTERPACE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the duty under 37 C.F.R. § 1.56 of each individual associated with the filing and prosecution of the above-identified patent application (hereinafter, "associated individuals") to disclose all information known to that individual to be material to patentability, Applicant(s) hereby submits attached Form PTO-1449 (modified) listing cited references. This submission is made in accordance with 37 C.F.R. §§ 1.97 and 1.98 and § 609 of the Manual of Patent Examining Procedure.

The cited references, while believed to be of some relevance, are not necessarily considered to teach or suggest any aspect of the invention described and claimed in the above-

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identified patent application. Applicant(s) hereby expressly reserves the right to swear behind the effective dates of any of the cited references. Applicant(s) further reserves the right to question the relevance, materiality, and/or prior art status of any of the cited references in whole, in part, or in combination, subsequent to the filing of this information disclosure statement. This information disclosure statement is also not to be construed as a representation that a search has, or has not, been conducted or that no better art exists.

Rather, this information disclosure statement discloses only the best references of which the associated individuals are aware.

The Examiner is respectfully requested to consider each of the cited references, to indicate such consideration by initialing in the space provided next to each cited reference on the enclosed Form PTO-1449 (modified), to sign the initialed Form PTO-1449 (modified), and to return a copy of the same with the next communication to the Applicant(s).

Since copies of the cited references were previously submitted in prior U.S. Patent Application No. 10/037,171, copies of the cited references are not being submitted herewith. However, copies will be forwarded at the request of the Examiner.

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In accordance with 37 CFR § 1.97(b), this information disclosure statement is being filed (i) within three months of the filing date of the above-identified patent application; (ii) within three months of the date upon which the above-identified patent application entered the national stage as set forth in 37 CFR § 1.491; or (iii) before the mailing date of a first Office Action on the merit for the above-identified patent application. Accordingly, no statement or fee is required.

Please charge any shortage in fees due in connection with the filing of this communication to Deposit Account No. 50-0206, and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: February 6, 2004

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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

APPLICANT(S)

MICHAEL FARMWALD ET AL.

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FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

U.S. PATENT DOCUMENTS

EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	1.	5,034,964	Jul. 23, 1991	Khan et al.			_
	2.	4,755,937	July 5, 1989	Glier			
	3.	4,875,192	Oct 17, 1989	Matsumoto			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

4.	Hansen et al., "A RISC MICROPROCESSOR WITH INTEGRAL MMU AND CACHE INTERFACE", MIPS Computer Systems, Sunnyvale, CA, IEEE 1986 pp 145-148
5.	Moussouris et al., "A CMOS PROCESSOR WITH INTEGRATED SYSTEMS FUNCTIONS", MIPS Computer Systems, Sunnyvale, CA, IEEE 1986 pp 126-130
6.	"LR2000 High Performance RISC Microprocessor Preliminary" LSI Logic Corp. 1988, pp. 1-15
7.	"LR2010 Floating Point Accelerator Preliminary" LSI Logic Corp. 1988, pp 1-20
8.	"High Speed CMOS Databook", Integrated Device Technology Inc. Santa Clara, CA, 1988 pp 9-1 to 9-14
9.	Riordan T. "MIPS R2000 Processor Interface 78-00005(C)", MIPS Computer Systems, Sunnyvale, CA, June 30, 1987, pp 1-83
10.	Moussouris, J. "The Advanced Systems Outlook-Life Beyond RISC: The next 30 years in high-performance computing", Computer Letter, July 31, 1989 (an edited excerpt from an address at the fourth annual conference on the Advanced Systems Outlook, in San Francisco, CA (June 5))

	EXAMINER	DATE CONSIDERED
*	EXAMINER: Initial citation if reference was considered. Draw line	through citation if not in conformance to MPEP 609 and not considered.



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FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

U.S. PATENT DOCUMENTS

			U.S. PATENT DU	CUMENTS			
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	11.	4,330,852	May 18, 1982	Redwine et al.			
	12.	4,703,418	Oct. 27, 1987	James			
	13.	4,785,394	Nov. 15, 1988	Fischer			
	14.	4,726,021	Feb. 16, 1988	Horiguchi et al.			
	15.	4,870,562	Sept. 26, 1989	Kimoto et al.			

FOREIGN PATENT DOCUMENTS

			FOREIGN FATERI D	000111211120			
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	16.	S56-82961	July 7, 1981	Japan			
	17.	S57-14922	Jan. 26, 1982	Japan			
	18.	Sho 60-80193	May 8, 1983	Japan			
	19.	Sho 60-55459	Mar. 30, 1985	Japan		٠.	
	20.	S61-72350	April 14, 1986	Japan			
	21.	S63-142445	June 14, 1988	Japan			
	22.	B63-46864	Sept. 19, 1988	Japan			
	23.	S64-29951	Jan. 31, 1989	Japan			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

24.	Watanabe, T.; "Session XIX: High Density SRAMS"; IEEE International Solid State Circuits Conference pp. 266-267 (1987)
25.	Ohno, C.; "Self-Timed RAM: STRAM"; Fujitsu Sci. TechJ., 24, 4, pp 293-300 (Dec. 1988)
26.	"Fast Packet Bus for Microprocessor Systems with Caches", IBM Technical Disclosure Bulletin, pp.279-282 (Jan 1989)
27.	Gustavson, D. "Scalable Coherent Interface"; Invited Paper, COMPCON Spring '89, San Francisco, CA; IEEE, pp. 536-538 (Feb 27-Mar 3, 1989)
	James, D.; "Scalable I/O Architecture for Busses"; IEEE, pp. 539-544 (April 1989)

EXAMINER

DATE CONSIDERED

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ATTY. DOCKET NO. 57941.000063

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FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

U.S. PATENT DOCUMENTS

			U.S. PATENT DC	CUMENTS			
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	28.	4,205,373	May 27, 1980	Shah et al.			
	29.	4,845,670	Jul. 4, 1989	Nishimoto et al.			
	30.	4,509,142	Apr. 2, 1985	Childers		- "	
	31.	4,183,095	Jan. 8, 1980	Ward			
	32.	4,685,088	Aug. 4, 1987	Ianucci			
	33.	4,975,872	12/04/90	Zaiki			
	34.	5,016,226	05/14/91	Hiwada et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	SLATION ES/NO
	35.	0 246 767	April 28, 1987	EPO			
	36.	0 334 552	Mar. 16, 1989	EPO			
	37.	0 276 871	Jan. 29, 1988	EPO			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	OTHER DOCUMENTS (Including Author, Title, Date, Perunent rages, Etc.)
38.	European Search Report for EPO Patent Application No. 00 101 1832
39.	European Search Report for EPO Patent Application No. 89 30 2613
40.	Z. Amitai, "New System Architectures for DRAM Control and Error Correction", Monolithic Memories Inc., Electro/87 and Mini/Mico Northeast: Focusing on the OEM Conference Record, pp. 1132, 4/31-3, (April 1987)
41.	N. Siddique, "100-MHz DRAM Controller Sparks Multiprocessor Designs", Electronic Design, pp. 138-141, (Sept 1986)
42.	H. Kuriyama et al., "A 4-Mbit CMOS SRAM WITH 8-NS SERIAL ACCESS TIME", IEEE Symposium On VLSI Circuits Digest Of Technical Papers, pp. 51-52, (June 1990)
43.	J. Chun et al., "A 1.2ns GaAs 4K Read Only Memory", IEEE Gallium Arsenide Integrated Circuit Symposium Technical Digest, pp. 83-86, (Nov. 1988)
44.	A. Fielder et al., "A 3 NS 1K X 4 STATIC SELF-TIMED GaAs RAM", IEEE Gallium Arsenide Integrated Circuit Symposium Technical Digest, pp. 67-70, (Nov. 1988)
45.	JEDEC Standard No. 21C

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DATE CONSIDERED



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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. 57941.000063 SERIAL NUMBER 10/716,596

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INFORMATION DISCLOSURE **STATEMENT** BY APPLICANT

FILING DATE November 20, 2003 **GROUP ART UNIT** Unassigned

U.S. PATENT DOCUMENTS

			O.D. I III I				
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	46.	4,630,193	Dec. 16, 1986	Kris			
	47.	4,710,904	Dec. 1, 1987	Suzuki			
	48.	4,739,502	Apr. 19, 1988	Nozaki			
	49.	4,905,201	Feb. 27, 1990	Ohira et al.			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

50.	European Search Report for EPO Patent Application No. 00 10 0018
51.	European Search Report for EPO Patent Application No. 00 10 822
52.	T.L. Jeremiah et. al., "SYNCHRONOUS PACKET SWITCHING MEMORY AND I/O CHANNEL," IBM Tech. Disc. Bul,. Vol. 24, No. 10, pp. 4986-4987 (Mar. 1982)
53.	L. R. Metzeger, "A 16K CMOS PROM with Polysilicon Fusible Links", IEEE Journal of Solid State Circuits, vol. 18 No. 5, pp. 562-567 (Oct. 1983)
54.	A. Yuen et. al., "A 32K ASIC Synchronous RAM Using a Two-Transistor Basic Cell", IEEE Journal of Solid State Circuits, vol. 24 No. 1, pp. 57-61 (Feb. 1989)
55.	Pelgrom et al., "A 32-kbit Variable-Length Shift Register for Digital Audio Application", IEEE Journal of Solid-State Circuits, vol. sc-22, no. 3, June 1987, pp 415-422
56.	Grover et al., "Precision Time-Transfer in Transport Networks Using Digital Crossconnect Systems", IEEE Paper 47.2 Globecom, 1988, pp 1544-1548
57.	Gustavson et al., "The Scalable Interface Project (Superbus)" (DRAFT), SCI-22 Aug 88-doc1 pp 1-16, August 22, 1988
58.	Knut Alnes, "SCI: A Proposal for SCI Operation", SCI-10Nov88-doc23, Norsk Data, Oslo, Norway, pp. 1-12, Nov. 10, 1988
59.	Knut Alnes, "SCI: A Proposal for SCI Operation", SCI-6Jan89-doc31, Norsk Data, Oslo, Norway, pp. 1-24, Jan 6, 1989
60.	Bakka et al., "SCI: Logical Level Proposals", SCI-6Jan89-doc32, Norsk Data, Oslo, Norway, pp. 1-20, Jan 6, 1989
61.	Knut Alnes, "Scalable Coherent Interface", SCI-Feb 89-doc52, (To appear in the Eurobus Conference Proceedings May 1989), pp. 1-8
62.	Boysel et al., "Four-Phase LSI Logic Offers New Approach to Computer Designer", Four-Phase Systems Inc. Cupertino, CA, Computer Design, April 1970, pp. 141-146,
63.	Boysel et al., "Random Access MOS Memory Packs More Bits To The Chip", Electronics, Feb. 16, 1970, pp. 109-146,

EXAMINER	DATE CONSIDERED
EXAMINED Initial citation if reference was considered. Draw line	through citation if not in conformance to MPEP 609 and not considered.

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FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

U.S. PATENT DOCUMENTS

			U.D. I AILDINE	0.001.121.110	_		
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	64.	4,206,833	04/27/93	Lee			
	65.	4,953,128	08/28/90	Kawai et al.			
	66.	5,140,688	08/18/92	White et al.			
	67.	5,018,111	05/21/91	Madland			
	68.	4,845,664	07/04/89	Aichelmann, Jr. et al.			-
N-147	69.	4,734,880	03/29/88	Collins			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	70.	D.T. Wong et. al., "An 11-ns 8Kx18 CMOS Static RAM with 0.5-µm Devices", IEEE Journal of Solid
	/0.	State Circuits, vol. 23 No. 5, pp. 1095-1103 (Oct. 1988)
<u> </u>		
	71.	T. Williams et. al., "An Experimental 1-Mbit CMOS SRAM with Configurable Organization and
	_	Operation", IEEE Journal of Solid State Circuits, vol. 23 No. 5, pp. 1085-1094 (Oct. 1988)
	72.	D. Jones, "Synchronous static ram", Electronics and Wireless World, vol.93, no.1622, pp. 1243-4 (Dec.
		87)
	73.	F. Miller et. al., "HIGH FREQUENCY SYSTEM OPERATION USING SYNCHRONOUS SRAMS",
	<u> </u>	Midcon/87 Conference Record, pp. 430-432 Chicago, IL, USA; 15-17 Sept. 1987
į	74.	K. Ohta, "A 1-Mbit DRAM with 33-MHz Serial I/O Ports", IEEE Journal of Solid State Circuits, vol. 21
		No. 5, pp. 649-654 (Oct. 1986)
	75.	K. Nogami et. al., "A 9-ns HIT-Delay 32-kbyte Cache Macro for High-Speed RISC", IEEE Journal of
		Solid State Circuits, vol. 25 No. 1, pp. 100-108 (Feb. 1990)
	76.	F. Towler et. al., "A 128k 6.5ns Access/ 5ns Cycle CMOS ECL Static RAM", 1989 IEEE international
		Solid State Circuits Conference, (Feb. 1989)
	77.	M. Kimoto, "A 1.4ns/64kb RAM with 85ps/3680 Logic Gate Array", 1989 IEEE Custom Integrated
		Circuits Conference
	78.	D. Wendell et. al. "A 3.5ns, 2Kx9 Self Timed SRAM", 1990 IEEE Symposium on VLSI Circuits (Feb
	ľ	1990)
	79.	S. Watanabe et. al., "AN Experimental 16-Mbit CMOS DRAM Chip with a 100-MHz Serial
		READ/WRITE Mode", IEEE Journal of Solid State Circuits, vol. 24 No. 3, pp. 763-770 (June 1982)
	80.	K. Numata et. al. "New Nibbled-Page Architecture for High Density DRAM's", IEEE Journal of Solid
		State Circuits, vol. 24 No. 4, pp. 900-904 (Aug. 1989)
	81.	H. L. Kalter et al. "A 50-ns 16Mb DRAM with a 10-ns Data Rate and On-Chip ECC" IEEE Journal of
	1	Solid State Circuits, vol. 25 No. 5, pp. 1118-1128 (Oct 1990)
	82.	J. Sonntag et al. "A Monolithic CMOS 10MHz DPLL for Burst-Mode Data Retiming", IEEE International
	02.	Solid State Circuits Conference (ISSCC) February 16, 1990
i		Solid State Chesits Completion (1888-6) February 10, 1220

DATE CONSIDERED

ATTY. DOCKET NO. 57941.000063 SERIAL NUMBER 10/716,596

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

STATEMENT

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APPLICANT(S) MICHAEL FARMWALD ET AL.

INFORMATION DISCLOSURE

FILING DATE November 20, 2003 **GROUP ART UNIT** Unassigned

U.S. PATENT DOCUMENTS

				OCCUIENTE	~~~		
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	83.	4,649,511	03/10/97	Gdula			
:	84.	4,860,198	08/22/89	Takenaka			
	85.	3,969,706	07/13/76	Proebsting et al.			
	86.	4,766,536	08/23/88	Wilson, Jr. et al.			
	87.	4,998,262	03/05/91	Wiggers			
	88.	4,757,473	07/12/88	Kurihara et al.			
	89.	4,792,926	12/20/88	Roberts			
	90.	4,811,202	03/07/89	Schabowski			
	91.	5,034,917	07/23/91	Bland et al.			
	92.	5,301,278	04/05/94	Bowater et al.			
	93.	5,153,856	10/06/92	Takahashi			
	94.	4,853,896	08/01/89	Yamaguchi			
	95.	4,747,079	05/24/88	Yamaguchi			
	96.	4,945,516	07/31/90	Kashiyama			
	97.	4,445,204	04/24/84	Nishiguchi			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) M. Horowitz et. al., "MIPS-X: A 20-MIPS Peak 32-bit Microprocessor with On-Chip Cache", IEEE 98. Journal of Solid State Circuits, vol. 22 No. 5, pp. 790-799 (Oct. 1987) R. L. Schmidt, "A memory Control Chip for Formatting Data into Blocks Suitable for Video 99. Coding Applications", IEEE Transactions on Circuits And Systems, vol. 36 No. 10, pp. 1275-1280 (Oct 1989) L. R. Metzeger, "A 16K CMOS PROM with Polysilicon Fusible Links", IEEE Journal of Solid 100. State Circuits, vol. SC-18 No. 5, pp. 561-567 (Oct. 1983) A. L. Yuen, "A 32K ASIC Synchronous RAM Using a Two-Transistor Basic Cell", IEEE Journal of 101. Solid State Circuits, vol. 24 No. 1, pp. 57-61 (Oct. 1989)

EXAMINER DATE CONSIDERED	EXAMINER	DATE CONSIDERED
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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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U.S. PATENT DOCUMENTS

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EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	102.	5,051,889	09/24/91	Fung et al.			
	103.	5,361,277	11/01/94	Grover			
	104.	4,954,987	09/04/90	Auvinen et al.			
	105.	4,570,220	02/11/86	Tetrick et al.			
	106.	4,247,817	01/27/81	Heller			
	107.	4,519,034	05/21/85	Smith et al.			
	108.	3,691,534	09/12/72	Varadi et al.			
	109.	4,920,486	04/24/90	Nielsen			
	110.	4,263,650	04/21/81	Bennett et al.			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		OTHER DOCOMENTO (Including Nation, Title, Bate, Fertillers Fages, Etc.)
	111.	S.K. Kwon et al., "Memory Chip Organizations For Improved Reliability In Virtual Memories", IBM
1		Technical Bulletin vol. 25 No. 6, pp. 2952-2957 (Nov 1982)
	112.	J. Peterson, "System-Level Concerns Set Performance Gains", High Performance Systems, pp. 71-77 (Sept. 89)
	113.	N. Margulis, "Single Chip CPU Eases Single Chip System Design", High Performance Systems, pp. 34-44 (Sept. 89)
	114.	F.Nart, "Multiple Chips Speed CPU Subsystems", High Performance Systems, pp. 46-55 (Sept. 89)
	115.	D.T. Wong, "An 11-ns 8Kx18 CMOS Static RAM with 0.5-um Devices", IEEE Journal of Solid State Circuits, vol. 23, No. 5, pp. 1095-1103 (Oct. 1988)
	116.	A. Agarwal et al., "An Evaluation of Directory Schemes for Cache Coherence", IEEE, pp. 280-289, 1988.

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DATE CONSIDERED



TRADE ATTY. DOCKET NO.

SERIAL NUMBER 10/716,596

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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U.S. PATENT DOCUMENTS

			S. PATENT DO	CUMENIS			
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	117.	4,719,602	01/12/88	Hag et al.			
	118.	5,023,488	06/11/91	Gunning			
	119.	4,754,433	06/28/88	Chin et al.			
	120.	3,771,145	11/06/73	Wiener			
	121.	5,021,985	06/04/91	Hu et al.			
	122.	4,821,226	04/11/89	Christopher et al.			
	123.	4,882,712	11/21/89	Ohno et. al.		-	
	124.	4,951,251	08/21/90	Yamaguchi et al.			
	125.	4,928,265	12/29/92	Beighe et al.			
	126.	5,107,465	04/21/92	Fung et al.			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

12	7.	D. Hawley, "Superfast Bus Supports Sophisticated Transactions", High Performance Systems, pp. 90-94 (Sept. 89)
12	8.	M. Bazes, A Programmable NMOS DRAM Controller for Microcomputer Systems with Dual Port Memory and Error Checking and Correction", IEEE Journal of Solid State Circuits, vol. SC-18, No. 2, pp. 164-172 (April 1983)
12	9.	D. Wendell et al., "A 3.5ns Self Timed SRAM", IEEE 1990 Symposium on VLSI Circuits pp. 49-50
13	0.	J. Chun et al., "A pipelined 650 MHz GaAs 8K ROM with Translation Logic" IEEE 1990 GaAs IC Symposium, pp 139-142
13	1.	A. L. Yuen, "A 32K ASIC Synchronous RAM Using a Two-Transistor Basic Cell", IEEE Journal of Solid State Circuits, vol. 24 No. 1, pp. 57-61 (Oct. 1989)
13	2.	Tomoji Takada et al., "A Video Codec LSI for High-Definition TV Systems with One-Transistor DRAM Line Memories," IEEE Journal of Solid-State Circuits, Vol. 24, No. 6, pp. 1656-1659 (Dec. 1989)
13	3.	Amitai, Z., "Burst Mode Memories Improve Cache Design," WESCON/90 Conference Record, pp. 29-32 (Nov. 1990)

EXAMINER	DATE CONSIDERED



PTO-1449 (Modified) ATTY. DOCKET NO. 57941.000063

SERIAL NUMBER 10/716,596

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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U.S. PATENT DOCUMENTS

			U.S. PATENT DUC	UNIENIS			
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	134.	4,633,735	05/05/87	Novak, et. al			
	135.	5,684,753	11/04/97	Hashimoto, et al			
	136.	4,322,635	03/30/81	Redwine			
	137.	4,916,670	04/10/90	Suzuki et al.			
	138.	5,006,982	04/09/91	Ebersole et al.	-		
	139.	4,636,986	01/13/87	Pinkham			
	140.	4,979,145	12/18/90	Remington et al.			
	141.	5,276,846	01/04/94	Aichelmann Jr., et. al			
	142.	4,761,567	Aug. 2, 1988	Walters, Jr. et al.			
	143.	5,101,117	Mar. 31, 1992	Johnson et al.			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	OTHER DOCUMENTS (Including Author, True, Date, Fertilient Fages, Etc.)
144.	Ikeda, Hiroaki et al., "100 MHz Serial Access Architecture for 4MB Field Memory," Symposium of VLSI Circuits, Digest of Technical Papers, pp. 11-12 (Jun. 1990)
145.	Takasugi, A. et al., "A DATA TRANSFER ARCHITECTURE FOR FAST MULTI-BIT SERIAL ACCESS MODE DRAM", 11TH European Solid State Circuits Conference, Toulouse France pp. 161-165 (Sep. 1985)
146.	Ray Pinkham et al., "A 128Kx8 70-MHz Multiport Video RAM with Auto Register Reload and 8x4 WRITE Feature," IEEE Journal of Solid State Circuits, vol. 23, no. 3, pp. 1133-1139 (Oct. 1988)
147.	Graham, Andy et al., "Pipelined static RAM endows cache memories with 1-ns speed", Electronic Design pp. 157-170 (Dec. 1984)
148.	Robert J. Lodi et al., "Chip and System Characteristics of a 2048-Bit MNOS-BORAM LSI Circuit," IEEE International Solid-State Circuits Conference, (Feb. 1976)
149.	Pinkham, Raymond, "A High Speed Dual Port Memory with Simultaneous Serial and Random Mode Access for Video Applications," IEEE Journal of Solid-State Circuits, Vol. SC-19, No. 6, pp. 999-1007 (Dec. 1984)
150.	Ishimoto, S. et al., "A 256K Dual Port Memory," ISSCC Digest of Technical Papers, p. 38-39 (Feb. 1985)

EXAMINER DAT	E CONSIDERED
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TTY. DOCKET NO. 57941.000063 SERIAL NUMBER 10/716,596

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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INFORMATION DISCLOSURE **STATEMENT** BY APPLICANT

FILING DATE November 20, 2003 **GROUP ART UNIT** Unassigned

U.S. PATENT DOCUMENTS

			U.S. PATENT D	OCUMENTS			
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	151.	4,482,999	11/13/84	Janson et al.			
	152.	5,029,124	07/02/91	Leahy et al.			
	153.	5,193,193	03/09/93	Iyer			
	154.	4,926,385	05/15/90	Fujishima et al.			
	155.	4,566,099	01/21/86	Magerl			
	156.	4,803,621	02/07/89	Kelly	İ		
	157.	4,589,108	05/13/86	Billy			
	158.	4,870,622	09/26/89	Aria et al.		:	
	159.	4,878,166	10/31/89	Johnson et al.		:	
	160.	4,849,965	07/18/89	Chomel et al.			
	161.	4,851,990	07/25/89	Johnson et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUME NUMBE		DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	162.	sho 58-31637A	Feb 24, 1983	Japan			
	163.	sho 59-165285A	Mar. 11, 1983	Japan			
	164.	sho 60-261095A	June 6, 1984	Japan			
	165.	sho 63-300310	Dec. 7, 1988	Japan			
	166.	hei 2-8950	Jan 12, 1990	Japan			
77	167.	sho 58-184626A	Oct 28, 1983	Japan			
	168.	0 276 871	03/08/88	EPO			

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SERIAL NUMBER 10/716,596

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

U.S. PATENT DOCUMENTS

			U.S. PATENT D	OCUMEN 13	_		
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	169.	4,528,661	07/09/85	Bahr et al.			
	170.	4,048,673	09/13/77	Hendrie et al.			
	171.	4,748,617	05/31/88	Drewlo			
	172.	4,839,801	06/13/89	Nicely et al.			
	173.	4,949,301	08/14/90	Joshi et al.			
	174.	3,950,735	04/13/76	Patel			
	175.	4,047,246	09/06/77	Kerllenevich et al.			
	176.	4,763,249	08/09/88	Bomba et al.			
	177.	4,625,307	11/25/86	Tulpule et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	178.	SHO 58-192154	Nov. 9, 1983	Japan			
	179.	SHO 63-34795	Feb. 15, 1988	Japan			
	180.	SHO 61-107453	May 26, 1986	Japan			
	181.	SHO 63-91766	April 22, 1988	Japan			
·	182.	SHO 62-16289	Jan. 24, 1987	Japan			
	183.	SHO 61-160556	Oct. 4, 1986	Japan			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Robert J. Lodi et al., "MNOS-BORAM Memory Characteristics," IEEE Journal of Solid-State Circuits, vol. SC-11, No. 5, pp. 622-631 (Oct. 1976)
185.	Dave Bursky, "ADVANCED SELF-TIMED SRAM PARES ACCESS TIME TO 5 NS", Electronic Design, pp. 145-147 (Feb. 22, 1990)

EXAMINER DATE CONSIDERED

U.S. DEPARTMENT OF COMMERCE

PATENT AND TRADEMARK OFFICE

STATEMENT

BY APPLICANT

INFORMATION DISCLOSURE

ATTY. DOCKET NO. 57941.000063 SERIAL NUMBER 10/716,596

APPLICANT(S)

MICHAEL FARMWALD ET AL.

FILING DATE November 20, 2003 **GROUP ART UNIT** Unassigned

U.S. PATENT DOCUMENTS

			U.S. PATENT D	OCCUIDATE			
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	186.	3,691,534	09/12/72	Veradi, et. al			
	187.	3,771,145	11/06/73	Wiener			
	188.	4,536,795	08/20/85	Hirota, et. al			
	189.	4,629,909	12/16/86	Cameron			
-	190.	4,631,659	12/23/86	Hayne, et. al			
	191.	4,858,113	08/15/89	Saccardi			
	192.	4,499,536	02/12/85	Gemma et al.			
	193.	4,648,102	03/03/87	Riso, et. al			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	SLATION ES/NO
	194.	EP 0424774	05/02/91	EPO			
	195.	EP 0449052	03/29/90	EPO			• •

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

OTHER DOCUMENTS (Including Author, Title, Date, Fertilient Fages, Etc.)
Hans-Jurgen Mattausch et al., "A Memory-Based High-Speed Digital Delay Line with a
Large Adjustable Length," IEEE Journal of Solid-State Circuits, vol. 23, no. 1, pp. 105-
110 (Feb. 1988)
Lineback, J. Robert, "System Snags Shouldn't Slow the Boom in Fast Static RAMs,"
Electronics, pp. 60-62 (July 23, 1997)
Kanopoulos, Nick and Jill H. Hallenbeck, "A First-In, First-Out Memory for Signal
Processing Applications," IEEE Transactions on Circuits and Systems, Vol. CAS-33, No.
5, pp. 556-558 (May 1986)
Takasugi, A. et al., "A Data-Transfer Architecture for Fast Multi-Bit Serial Acess Mode
DRAM," 11 th European Solid State Circuits Conference, Toulouse, France pp.161-165
(Sep. 1985)
Fagan, J.L., "A 16-kbit Nonvolatile Charge Addressed Memory," IEEE Journal of Solid-
State Circuits, Vol. SC-11, No. 5, pp. 631-636 (Oct. 1976)
Schmitt-Landsiedel, Doris, "Pipeline Architecture for Fast CMOS Buffer RAMs," IEEE
Journal of Solid-State Circuits, Vol. 25, No. 3, pp. 741-747 (Jun. 1990)

EXAMINER	DATE CONSIDERED

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ATTY. DOCKET NO. 57941.000063

SERIAL NUMBER 10/716,596

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

APPLICANT(S)

MICHAEL FARMWALD ET AL.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

U.S. PATENT DOCUMENTS

			U.S. PATENT DO	COMENTS			
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	202.	4,825,287	04/25/89	Baji, et. al			
	203.	4,845,677	07/04/89	Chappell, et. al			
	204.	4,873,671	10/10/89	Kowshik, et. al			
	205.	4,876,670	10/24/89	Nakabayashi, et. al			
	206.	5,179,667	01/12/199	Iyer			
	207.	4,901,036	02/13/90	Herold, et. al			
	208.	4,970,418	11/13/90	Masterson			
	209.	5,210,715	05/11/93	Houston			
	210.	4,928,265	05/22/90	Higuchi et al.			
	211.	4,953,130	08/28/90	Houston			
	212.	5,251,309	10/05/93	Kinoshita et al.			
	213.	4,099,231	07/01/78	Kotok et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	,	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	214.	EP 0218523	05/30/89	EPO			
	215.	JP-A-1- 236494	09/21/89	JP			
	216.	Sho 62-71428	03/27/87	JP			
	217.	EP 0282735	09/21/88	EPO			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

218	1989 GaAs IC Data Book & Designers Guide, Gigabit Logic Inc. (Aug 1989)
219	"IC's for Entertainment Electronics, Picture in Picture System Edition 8.89", Siemens AG, 2/89

EXAMINER	DATE CONSIDERED
----------	-----------------



TTY. DOCKET NO. 57941.000063 **SERIAL NUMBER** 10/716,596

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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INFORMATION DISCLOSURE **STATEMENT** BY APPLICANT

FILING DATE November 20, 2003 **GROUP ART UNIT** Unassigned

U.S. PATENT DOCUMENTS

EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	220.	5,099,481	04/24/92	Miller			
	221.	5,016,226	05/14/91	Hiwada, et. al			
	222.	5,023,835	06/11/91	Akimoto, et. al			
	223.	5,036,495	07/30/91	Busch, et. al			
	224.	5,111,486	05/05/92	Oliboni, et. al			
	225.	5,123,100	06/16/92	Hisada, et. al			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	226.	WO 89/12936	12/28/89	PCT			
	227.	JP 62-51509	03/06/87	Japan			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

2	28.	Svensson, Christer, "High Speed CMOS Chip to Chip Communications Circuit," IEEE
		International Symposium on Circuits and Systems, pp. 2228-2231 (Jun. 1991)
2	29.	Wakayama, Myles, "A 30-MHz Low-Jitter High-Linearity CMOS Voltage-Controlled
		Oscillator," IEEE Journal of Solid-State Circuits, Vol. SC-22, No. 6, pp. 1074-1081 (Dec.
		1987)
2	30.	Iqbal, Mohammad Shakaib, "Internally Timed RAMs Build Fast Writable Control Stores,"
		Electronic Design, pp. 93-96 (August 25, 1988)
2	31.	Schnaitter, William M. et al., "A 0.5-GHz CMOS Digital RF Memory Chip," IEEE Journal
		of Solid-State Circuits, vol. SC-21, no. 5, pp. 720-726 (Oct. 1986)
2	32.	Whiteside, Frank, "A Dual-Port 65ns 64Kx4 DRAM with a 50MHz Serial Output," IEEE
		International Solid-State Circuits Conference Digest (Feb. 1986)
2	33.	Wu, Jich-Tsorng, "A 100-MHz Pipelined CMOS Comparator," IEEE Journal of Solid-State
		Circuits, Vol. 23, No. 6, pp. 1379-1385 (Dec. 1988)
2	34.	Motorola MC88200 Cache/Memory Management Unit User's Manual, Motorola Inc. 1989
		Motorola Microsco Cache/Melliory Management Offit Osci S Manual, Motorola Inc. 1909
2	35.	B. Ramakrishna et al., "The Cydra 5 Departmental Supercomputer Design Philosophies,
		Decisions, and Trade-offs" Computer IEEE, Jan 1989 pp. 12-35

EXAMINER	DATE CONSIDERED
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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TY. DOCKET NO. 57941.000063

SERIAL NUMBER 10/716,596

APPLICANT(S)

MICHAEL FARMWALD ET AL.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

U.S. PATENT DOCUMENTS

EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	236.	4,933,953	Jun. 12, 1990	Yagi			
	237.	5,133,064	Jul. 21, 1992	Hotta et al			
	238.	5,184,027	Feb. 2, 1993	Masuda et al.		_	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLA YES/NO	
	239.	JP 1284132	Nov 15, 1989	Japan				
	240.	EP 0 329 418 A2	Aug 23, 1989	EPO				
	241.	JP 1043894	Feb. 16, 1989	Japan				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

242.	"Intel MCS-4 Micro Computer Set", Intel Corporation, Santa Clara, CA,1972, (pp.1-12)
243.	"MIPS R3010 coprocessor", IEEE Micro June 1988, (pp.54-62)
244.	"Intel MCS-4 Micro Computer Set Users Manual", Intel Corporation, Santa Clara, CA, March 1972, (pp.1-26, and 60-68)
245.	"Bipolar/MOS Memories Data Book", Advanced Micro Devices, Sunnyvale, CA, 1986 (pp. 4-143 to 4-163)
246.	"Memories 1986-87 Databook", Fujitsu Inc., 1986 (pp. 1-102 to 1-128)
247.	"MIPS Chip Set Implements Full ECL CPU" Microprocessor Report, MicroDesign Resources Inc., Vol. 3: No. 12; Dec. 1989
248.	"R6000 System Bus & R6020 SBC Specification" MIPS Computer Systems Inc., Sunnyvale, CA, Aug 22, 1989
249.	R.A. Volz et al., "POSITION PAPER ON GLOBAL CLOCK FOR THE FUTUREBUS +", SCI – 1989 – doc-59, pp. 1-9
250.	"ECL bus controller hits 266 Mbytes/s" Microprocessor Report, MicroDesign Resources Inc., Vol. 4: No. 1; Pg. 12, Jan. 24, 1990

EXAMINER	DATE CONSIDERED
EVAMINED. Laisial situation if reference uses considered. Draw line	through sitation if not in conformance to MDED 600 and not considered

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SERIAL NUMBER 10/716,596

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

U.S. PATENT DOCUMENTS

			U.S. PATENT DUC	UNIENIS			
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	251.	4,922,141	May 1, 1990	Lofgren et al.			
	252.	4,253,147	Feb. 24, 1981	MacDougall et al.			
	253.	4,975,877	Dec. 4, 1990	Bell			
	254.	4,712,194	Dec. 8, 1987	Yamaguchi			
	255.	5,287,532	Feb. 15, 1994	Hunt			
	256.	5,157,776	Oct. 20, 1992	Foster			
	257.	5,023,838	Jun. 11, 1991	Herbert			
	258.	4,961,171	Oct. 2, 1990	Pinkham et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	· TRANSLATION YES/NO	۷ .
	259.	0 329 418	Aug. 23, 1989	United Kingdom				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

***	260.	Ralston, E.D. Reilly, "Encyclopedia of Computer Science", Chapman & Hall, 1983, page 1471
	261.	S.A. Ward, R.H. Halstead, "Computation Structures", The MIT Press, McGraw-Hill Book Company, 1990, pages, 174-175, 93, 250-251, and 258-259
	262.	Betty Prince, "Semiconductor Memories", Second Edition, John Wiley & Sons, 1991, pages 251, 310, 314, 200-201, 467

EXAMINER	DATE CONSIDERED					
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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

APPLICANT(S)

MICHAEL FARMWALD ET AL.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

ILS PATENT DOCUMENTS

			U.S. PATENT	DOCUMENTS			
EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	263.	4,930,065	May 22, 1990	McLagan et al.			
	264.	4,782,439	Nov. 1, 1988	Borkar et al.			
	265.	4,747,081	May 24, 1988	Heilveil et al.			
	266.	4,704,678	Nov. 3, 1987	May			
-	267.	4,644,469	Feb. 17, 1987	Sumi			
1, 1, , 11	268.	4,641,276	Feb. 3, 1987	Dunki-Jacobs			
	269.	4,639,890	Jan. 27, 1987	Heilveil et al.			
	270.	4,468,733	Aug. 28, 1984	Oka et al.			
	271.	4,426,685	Jan. 17, 1984	Lorentzen			
	272.	4,408,272	Oct. 4, 1983	Walters			
4.1	273.	4,257,097	Mar. 17, 1981	Moran			
	274.	3,846,763	Nov. 5, 1974	Riikonen			
-	275.	Н696	Oct. 3, 1989	Davidson			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	276.	61028248	Feb. 7, 1986	Japan			
	277.	58184647	Oct. 28, 1983	Japan			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	OTHER DOCUMENTS (Inchang Manor, Thie, Date, Termion Tages, 200)
278.	Hopper et al., Multiple vs. Wide Shared Bus Multiprocessors, Proceedings of the 16th Annual
1	International Symposium on Computer Architecture, Jerusalem, Israel, June 1989, IEEE Computer
	Society Press, 1989.
279.	Gehringer et al., A Survey of Commercial Parallel Processors, Computer Architecture News, Vol.
	16, No. 4, Sept. 1988.
280.	Dubois et al. Effects of Cache Coherency in Multiprocessors, IEEE Transaction in Computers,
1	Vol. C31, No. 11, pgs. 1083-1099, November 1982.

EXAMINER	DATE CONSIDERED
EVAMINED: Initial citation if reference was considered. I	Draw line through citation if not in conformance to MPEP 609 and not considered



PTO-1449 (Modified) TRADE

TTY. DOCKET NO. 57941.000063 SERIAL NUMBER 10/716,596

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

APPLICANT(S)

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INFORMATION DISCLOSURE **STATEMENT** BY APPLICANT

FILING DATE November 20, 2003 **GROUP ART UNIT** Unassigned

U.S. PATENT DOCUMENTS

EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	281.	5,847,997	Dec. 8, 1998	Harada et al.			
	282.	5,148,523	Sep 15, 1992	Harlin et al.			
	283.	5,142,637	Aug. 25, 1992	Harlin et al.			
	284.	5,109,498	Apr. 28, 1992	Kamiya et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	285.	120553/1987	Jun. 1, 1987	Japan			
	286.	0 189 576	Aug. 6, 1986	EPO			
	287.	0 187 289	Jul. 16, 1986	EPO			
	288.	0 166 192	Jan. 2, 1986	EPO			
	289.	0 126 976	Dec. 5, 1984	ЕРО			
	290.	135684/1984	Aug. 3, 1984	Japan			
	291.	82/02615	Aug. 5, 1982	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

292.	S. Muchmore, Designing Computer Systems Based on Multibus II, New Electronics, Vol. 20, No.
	16, p. 31-32, Aug. 11, 1987.
293.	T.C. Poon et al., A CMOS DRAM-Controller Chip Implementation, IEEE Journal of Solid State
	Circuits, Vol. 22, No. 3, pp. 491-494, Jun. 1987.
294.	Accordion Start-Stop Sequencer for a Variable Cycle Storage Controller, IBM Technical
<u> </u>	Disclosure Bulletin, pp. 2074-2075, (a delphion.com repring on two sheets), Oct. 1986.
295.	Motorola 68030 Cache Organization, posting to Internet Newsgroup net.arch by
.	aglew@ccvaxa.UUCP, (a google.com reprint on two sheets), Sep. 29, 1986.
296.	Stanley D. Rosenbaum et al., A 16 384-Bit High-Density CCD Memory, IEEE Journal of Solid
	State Circuits, Vol. SC-11, No. 1, pp. 33-39, Feb. 1976

EXAMINER	DATE CONSIDERED





THAD

57941.000063

SERIAL NUMBER 10/716,596

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

APPLICANT(S)

MICHAEL FARMWALD ET AL.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE November 20, 2003 GROUP ART UNIT Unassigned

U.S. PATENT DOCUMENTS

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EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	297.	5,083,296	Jan. 21, 1992	Hara et al.			
	298.	5,077,693	Dec. 31, 1991	Hardee et al.			
	299.	4,937,734	Jun. 26, 1990	Bechtolsheim			
	300.	4,920,483	Apr. 24, 1990	Pogue et al.			
	301.	4,912,630	Mar. 27, 1990	Cochcroft, Jr.			
	302.	4,807,189	Feb. 21, 1989	Pinkham et al.			
	303.	4,799,199	Jan. 17, 1989	Scales, III et al.			
	304.	4,788,667	Nov. 29, 1988	Nakano et al.			
	305.	4,680,738	Jul. 14, 1987	Tam			
	306.	4,675,850	Jun. 23, 1987	Kumanoya et al.			
	307.	4,315,308	Feb. 9, 1982	Jackson			
	308.	4,092,665	May 30, 1978	Saran			
	309.	4,084,154	Apr 11, 1978	Panigraphi			
	310.	3,821,715	Jun. 28, 1974	Hoff, Jr. et al.			
	311.	4,016,545	Apr. 5, 1977	Lipovski			

EXAMINER DATE CONSIDERED